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The schematic diagram illustrates a gas turbine engine system. On the left, a dashed box encloses the engine components: inlet 1a leads to compressor 1; 1b connects compressor 1 to combustor 2; 2a is an inlet to combustor 2; 3a connects combustor 2 to turbine 3; 5 is the shaft connecting turbine 3 and compressor 1; and 12 is a component connected to the turbine 3 shaft. Exhaust from turbine 3 goes through duct 4 to nozzle 9. A separate air intake path B enters from the top right, passes through filter 8, and splits into two paths: one leading to burner 6 and another leading to burner 7. Burner 6 feeds into combustor 2, while burner 7 feeds into a second combustor 11. Both combustors 2 and 11 drive turbines 3 and 9 respectively via their common shaft 5. The final exhaust from turbine 9 is labeled 3b.

(57) Abstract: Steam and gas turbine installation comprising a gas turbine unit (A) and a steam turbine unit (B), in which the gas turbine unit (A) is built up in part of at least : a gas compressor (1) mounted on a compressor shaft, a combustion chamber (2) and a gas turbine (3) mounted on a gas turbine shaft; and in which steam turbine unit (B) is built up in part of : a closed steam line, at least comprising : a pump (7) , a steam generator (8), which is in heat-exchanging contact with combustion gases from the gas turbine during operation, a steam turbine (9) mounted on a steam turbine shaft, as well as a condenser (11). The steam and gas turbine installation according to the invention is characterized in that the steam turbine (9) drives the gas compressor (1) of the gas turbine unit during operation.